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**(12) United States Patent
Mogul****(10) Patent No.: US 6,647,419 B1****(45) Date of Patent: Nov. 11, 2003****(54) SYSTEM AND METHOD FOR ALLOCATING
SERVER OUTPUT BANDWIDTH****(75) Inventor: Jeffrey Clifford Mogul, Menlo Park,
CA (US)****(73) Assignee: Hewlett-Packard Development
Company, L.P., Houston, TX (US)****(*) Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.**(21) Appl. No.: 09/401,617****(22) Filed: Sep. 22, 1999****(65) Prior Publication Data****(65)****(51) Int. Cl.⁷ G06F 15/173****(52) U.S. Cl. 709/226; 709/223; 709/232;
370/230; 370/232; 370/238; 370/468****(58) Field of Search 709/226, 223,
709/230, 232; 370/230, 231, 232, 233,
234, 235, 236, 237, 238, 468, 465****(56) References Cited****U.S. PATENT DOCUMENTS**

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Primary Examiner—Robert B. Harrell*Assistant Examiner*—M H P**(57) ABSTRACT**

A server computer handles multiple data flows between
itself and other devices. The server has one or more appli-
cations that allocate bandwidth to respective flows and a
network protocol stack that implements those allocations.
When bandwidth allocations are made in accordance with a
bandwidth allocation policy, the protocol stack in the net-
work server enforces the policy. The network protocol stack
provides a programming interface that allows the application
to specify the bandwidth allocation for a flow. The network
protocol stack then enforces this allocation unless there is no
shortage of available bandwidth.

27 Claims, 4 Drawing Sheets